

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-65 (Cancelled).

Claim 66 (Currently Amended): A method of providing immunotherapy to a patient comprising:

inoculating a culture with human T-cells;

culturing the human T-cells in a liquid culture medium which liquid culture medium is replaced at a rate of at least 25% daily replacement continuously for more than one day and for a time sufficient to obtain T-cells with enhanced replicative potential and cytokine secretion, which is relative to the replicative potential and cytokine secretion of the human T-cells that are cultured in static or hemi-depletion cultures, wherein the cell density of the T-cells is not substantially reduced or adjusted at any time during the culturing while maintaining a constant culture volume; and

transferring said cultured human T-cells into said patient to provide immunotherapy to the patient.

Claim 67 (Previously Presented): The method of claim 66, wherein the culture medium is continuously perfused at a ramped rate proportional to the lactate concentration and/or cell density to replace the culture medium without substantial dilution of the cell density.

Claim 68 (Currently Amended): The method of claim 66, wherein replacement of said medium comprises perfusing fresh medium through at least part of the mass of said human T-cells.

Claim 69 (Previously Presented): The method of claim 66, wherein said medium comprises animal or human sera or plasma.

Claim 70 (Previously Presented): The method of claim 66, comprising maintaining glucose concentration in said medium in the range of from 5 to 20 mM, lactate concentration in said medium below about 35 mM, glutamine concentration in said medium in the range of from 1 to 3 mM, and ammonia concentration in said medium below 2.4 mM.

Claim 71 (Previously Presented): The method of claim 66, further comprising removing nonadherent cells continuously, periodically, or intermittently, without disturbing adherent cells.

Claims 72-76 (Cancelled).

Claim 77 (Previously Presented): The method of Claim 66, wherein the liquid medium is replaced at a rate equal to 50 to 100% daily replacement for a cell density of from  $1 \times 10^4$  to  $1 \times 10^7$  cells per ml of culture.

Claim 78 (Previously Presented): The method of claim 77, wherein said medium comprises animal human sera or plasma.

Claim 79 (Previously Presented): The method of claim 77, comprising maintaining glucose concentration in said medium in the range of from 5 to 20 mM, lactate concentration in said medium below about 35 mM, glutamine concentration in said medium in the range of from 1 to 3 mM, and ammonia concentration in said medium below 2.4 mM.

Claim 80 (Previously Presented): The method of claim 77, further comprising removing nonadherent cells continuously, periodically, or intermittently, without disturbing adherent cells.

Claims 81-83 (Cancelled)

Claim 84 (Previously Presented): The method of Claim 66, wherein the human cells are cultured for at least 2 days.

Claim 85 (Previously Presented): The method of Claim 66, wherein the culture medium contains at least 1 growth factor which stimulates the proliferation of the cells.

Claim 86 (Cancelled).

Claim 87 (Previously Presented) The method of Claim 66, wherein the immunotherapy is adoptive immunotherapy.

Claim 88 (Previously Presented) The method of Claim 66, wherein the T-cells cultured are antigen specific T-cells.

Claim 89 (Previously Presented) The method of Claim 88, wherein the antigen specific T cells are specific for a viral antigen.

Claim 90 (Previously Presented) The method of Claim 88, wherein the antigen specific T cells are specific for a tumor reactive antigen.

Claim 91 (Previously Presented) The method of Claim 66, wherein the T-cells cultured are cytotoxic T cells.

Claim 92 (Previously Presented) The method of Claim 66, wherein the T-cells cultured are cytokine induced killer cells.

Claim 93 (Previously Presented) The method of Claim 66, wherein the T-cells are CD3+ and CD8+ T-cells.

Claim 94 (Previously Presented) The method of Claim 66, wherein the T-cells are CD3+ and CD4+ T-cells.

Claim 95 (Previously Presented) The method of Claim 66, wherein the T-cells are CD3+ and CD56+ T-cells.

Claim 96 (Previously Presented) The method of Claim 66, wherein the T-cells obtained by culturing have enhanced cytotoxicity and secretion of cytokines relative to T-cells cultured in static or semi-depletion cultures.

Claim 97 (Previously Presented) The method of Claim 96, wherein the cytokines are IFN- $\gamma$ , IL-10, TNF- $\alpha$ , GM-CSF and mixtures of these.

Claim 98 (Previously Presented) The method of Claim 66, wherein the liquid culture medium comprises IL-2, IL-7 or both IL-2 and IL-7.

Claim 99 (New) The method of Claim 66, wherein the human T-cells are inoculated in the culture medium in a density of from about  $5 \times 10^4$  to  $2 \times 10^6$  cells/ml of liquid culture medium and wherein the density of the T-cells after culturing is from about  $5 \times 10^6$  to  $5 \times 10^7$  cells/ml.

Claim 100 (New) The method of Claim 66, wherein the human T-cells are inoculated in the culture medium in a density of from about  $0.16 \times 10^6$  to  $0.32 \times 10^6$  cells/ml of liquid culture medium and wherein the density of the T-cells after culturing is from about  $12 \times 10^6$  to  $32 \times 10^7$  cells/ml.